

Application No. 10/070,349
Amendment Dated August 16, 2004
Reply to Office Action of May 20, 2004

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An oral appliance for placing in a mouth of a user, the appliance including:

a base member having a generally U-shaped form corresponding to the outline of a jaw of a user, the base member having inner and outer flanges interconnected by a web which define at least one of upper and lower channels within which the corresponding rows of teeth of a user are received, said base member being made of a plastics material which is rigid and non-thermoplastic at a temperature of 90°C - 95°C; and

a continuous layer of thermoplastic material that encompasses the base member thereby to firmly and securely mount the layer of thermoplastic material on the base member, the layer of thermoplastic material forming teeth engaging elements which can be conformed or moulded to suit the individual teeth of a user by heating to a temperature at which the layer is plastic and formable.

2. (Original) An oral appliance according to claim 1, wherein the base member defines an upper channel within which the upper row of teeth of a user is received.

Application No. 10/070,349
Amendment Dated August 16, 2004
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3. (Original) An oral appliance according to claim 1, wherein the base member defines both upper and lower channels within which respectively the upper and lower rows of teeth of a user are received.

Claims 4 – 16. (Cancelled)

17. (Currently amended) An oral appliance according to claim 1, wherein the layer of thermoplastic material is EVA (ethylvinylacetate) which ~~softens~~ is plastic at a temperature of 90°C – 95°C and the base is made out of a polymer from the group consisting of reasonably rigid plastics material which is a non-thermoplastics material such as polyurethane, polypropylene and santoprene.

18. (Previously presented) An oral appliance according to claim 1, wherein the layer of thermoplastic material forming the teeth engaging elements has a thickness of 1mm – 3mm and wherein said continuous layer of thermoplastics material substantially covers the full surface area of the base member.

19. (Currently amended) An oral appliance according to claim 1, wherein a tongue tag is formed on the inner flange of the base member, the tongue tag being substantially centrally positioned for correctly positioning the tongue of a user during use and the base member has breathing apertures defined therein for facilitating breathing by a user when wearing the appliance, and a notch defined in an upper surface of the outer flange for permitting inward or outward adjustment of the U-shaped member.

Application No. 10/070,349
Amendment Dated August 16, 2004
Reply to Office Action of May 20, 2004

20. (Currently amended) A method of manufacturing an oral appliance for placing in the mouth of a user, the method including the steps of:

moulding a base member from plastic material in a first moulding step in a first mould, the member having a generally U-shaped form corresponding to the outline of the jaw of a user and inner and outer flanges interconnected by a web which define at least one of upper and lower channels within which the corresponding rows of teeth of a user are received, the base member being made of plastics material which is rigid and non-thermoplastic at a temperature of 90° – 95°C;

removing the base member from the first mould and placing it in a second mould having a larger mould cavity and moulding a continuous layer of thermoplastic material onto the base member to form upper and lower teeth engaging elements capable of being customized to suit the mouth of a user, the layer encasing the member to thereby firmly and securely mount the layer of thermoplastic material on the base member.

21. (Previously presented) A method according to claim 20, wherein the base member defines an upper channel within which the upper row of teeth of a user is received or the base member defines both upper and lower channels within which respectively the upper and lower rows of the teeth of a user are received.

22. (Previously presented) A method according to claim 20, wherein the continuous layer of thermoplastic material is moulded substantially fully across the surface area of the base

Application No. 10/070,349
Amendment Dated August 16, 2004
Reply to Office Action of May 20, 2004

member in said second moulding step and wherein the layer of thermoplastic material is injection moulded from EVA while it is locked in position in the second mould.

23. (Currently amended) A method according to claim 20, wherein the base member is injection moulded from a polymer from the group consisting of polyurethane, ~~polyethylene~~, polypropylene or santoprime.